

## REMARKS

In claims 3, 5, 6, 7, 9, 10, 11, 12, 13, 14 and 15 applicants have amended the references to "ionic liquid" to refer to --nitrogen containing ionic liquid--. This amendment is supported by the specification as originally filed and will necessitate no further search on the part of the examiner. It is respectfully submitted the amended claims are in good order for entry into the application and the same is respectfully solicited.

In co-pending United States Patent Application 10/308,307 the examiner provisionally rejected the claims of that case pursuant to the judicially created doctrine of obviousness double patenting. MPEP 706.02(k) requires when there is alleged double patenting between applications that "....a provisional rejection under 35 USC 102(e)/103 should be made in the later filed application..." As that case was filed in the United States earlier than the present case the applicants indicated an intention to file a terminal disclaimer in this application so as not to extend any patent claims granted from United States Patent Application 10/308,307 and to comply with the MPEP. Enclosed is a terminal disclaimer executed by applicants' attorney.

The examiner rejected claims pursuant to 35 U.S.C. §112 for failing to point out and distinctly claim the subject matter which applicants regard as their invention. It is respectfully submitted the revised claims as noted above meet the requirement of 35 U.S.C. §112.

The examiner has rejected the claims pursuant to 35 U.S.C. §102 (e) in view of United States Patent Application 2003/0125599 in the name of Boudreau et al. published July 3, 2003. Applicants respectfully traverse the examiner's rejection.

A rejection under 35 USC 102(e) for anticipation necessarily implies that the invention sought be patented is not new, i.e., that there are no differences between what is claimed and what is disclosed in the prior art. *In re Kalm*, 154 USPQ 10 (CCPA 1967). The requirements for a prior reference to sustain a rejection pursuant to 35 U.S.C. §102 have been judicially considered in *Kahman v. Kimberly - Clark Corp.* 218 USPQ 781 (Fed. Cir. 1984) and *Leinoff v. Louis Milona & Sons, Inc.* 220 USPQ 845 (Fed. Cir. 1984). The courts have held that to sustain a rejection pursuant to 35 U.S.C. §102 each reference individually must identically disclose all the elements of the claim sought to be rejected.

The applied reference teaches the separation of mono-olefins and diolefins from mixtures containing non-olefins such as paraffins and aromatic species (see paragraphs 36, 37 and 52). The reference fails to teach that diolefins and aromatic compounds can be separated from other hydrocarbons using essentially the same process. The teaching of the reference is the non-olefins do not react with the ionic liquid (see paragraphs 11, 17, 22, 52, 53 and 64). That is, the non-olefins such as aromatic compounds do not complex with the ionic liquid and are separated from other hydrocarbons by simply decanting the non-olefins from the ionic liquid. This is not essentially the same teaching as that of the present patent application, and its claims, which clearly teach and claim that the aromatic compounds must be

released from the ionic liquid which is regenerated when the aromatic compound is released. Further, Applicants notes that Table 2 clearly teaches that the aromatic compounds such as ethylbenzene and styrene have significant solubility in the ionic liquid and they can not be merely decanted from the ionic liquid. In view of the foregoing it is respectfully submitted the applied reference does not identically teach the same subject matter as the claims of the present patent application. It is respectfully submitted the current claims meet the requirements of 35 U.S.C. §102 and that the claims are in good order for allowance.

The examiner has rejected the claims in view of 35 U.S.C. §103 in view of United States Patent 6,339,182 issued January 15, 2002 to Munson et al., assigned to Chevron. Applicants respectfully traverse the examiner's rejection.

The application of 35 U.S.C. §103 to the issue of patentability has been considered by the Supreme Court of the United States in *Graham v. John Deere* 148 USPQ 459. The Supreme Court held that 35 U.S.C. §103 requires a three-pronged inquiry. It is necessary to:

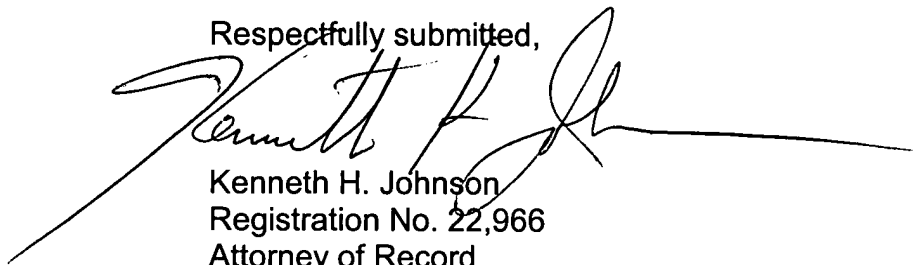
- (i) determine the knowledge disclosed in the prior art;
- (ii) determine the differences between the teaching of the prior art and the claims at issue; and
- (iii) resolve the differences between the teaching of the prior art and the claims in question on the level of the ordinary skill in the art field.

Munson et al. teaches the separation of olefins from paraffins (Col. 1 lines 17-20, 26, 31, 32, 50 and 66; Col 2. lines 13, 29, 52 and 53; Col. 3 lines 7-10, 15, and 37-39). Munson does not refer to aromatic compounds nor does Munson teach the

separation of diolefins. Rather Munson teaches that diolefins should be hydrogenated to mono olefins (Col. 4 lines 10-15). To one of ordinary skill in the art Munson teaches against the subject matter of the present claims of separating diolefins and aromatic compounds from other hydrocarbon compounds. To one of ordinary skill in the art using a teaching against the manner in which it is originally taught demonstrates inventive height or merit. It is respectfully submitted that given the test in *Graham v. John Deere* 148 USPQ 459 the claims currently under consideration define inventive subject matter.

In view of the foregoing it is respectfully submitted the claims currently under consideration are in good order for allowance and the same is respectfully solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Kenneth H. Johnson', with a long horizontal line extending to the right.

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